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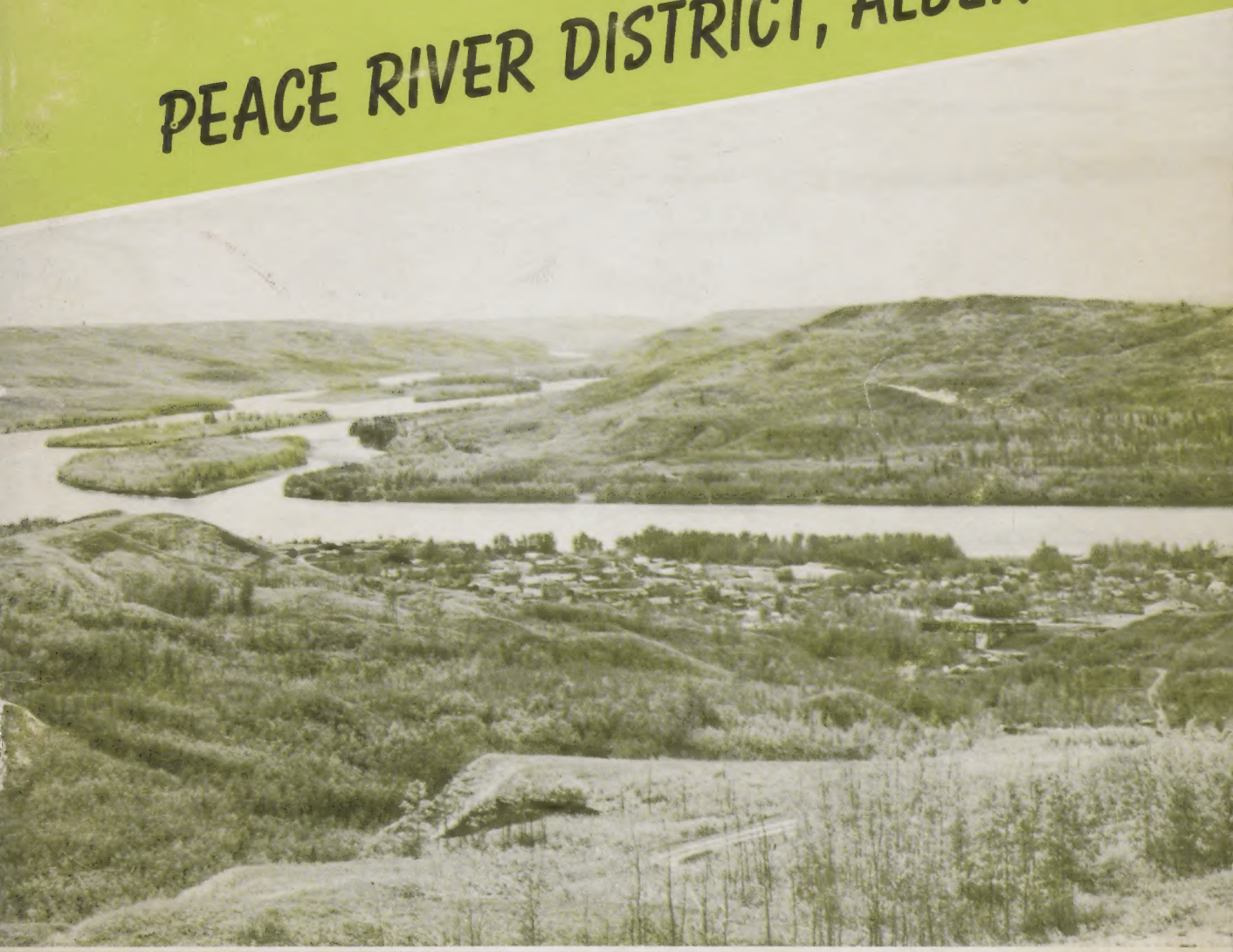
PUBLIC LANDS OPEN FOR SETTLEMENT *in the* PEACE RIVER DISTRICT, ALBERTA



Government of the Province of Alberta
Department of Lands and Forests, and Research Council of Alberta

PUBLISHED BY AUTHORITY OF

HON. NORMAN WILLMORE,
Minister of Lands and Forests,
EDMONTON, ALBERTA

Fourth Edition, Revised 1961

PUBLIC LANDS OPEN FOR SETTLEMENT in the PEACE RIVER DISTRICT OF ALBERTA

By

WM. ODYNSKY
Research Council of Alberta

and

A. D. PAUL and V. A. WOOD
Department of Lands and Forests

The front cover picture shows the town of Peace River below the junction of the Smoky and Peace rivers.

The back cover picture shows the Dunvegan bridge, completed in 1960.

Foreword

PUBLIC LAND makes up over half of the land area of Alberta. Much of this land, however, is unfit for farming and the Provincial Government has undertaken to restrict new settlement to areas that will adequately support community life. Accordingly, the greater proportion of the public lands in Alberta have been set aside either as Forest Reserves for the protection of the watershed, as forested areas to assure an adequate supply of timber in future years, or withheld from settlement pending further information relative to their soil resources. To further ensure the conservation of Alberta's forest and water resources and the maintenance of a profitable and permanent agriculture, no leases are issued or sales are made until the public land has been inspected and approved.

There are still, particularly in the northwestern part of Alberta, fairly large tracts of public land that may be suitable for agricultural development. Many inquiries have been received for information on the settlement possibilities in various parts of this area. In response to these inquiries a report was prepared, in collaboration with the Research Council of Alberta, to acquaint the reader with the location and characteristics of the public lands open for settlement in the Peace River district of Alberta. The report published in 1951 received wide acceptance as a source of information and was reprinted in 1953 and 1957 to meet the growing demands. This revised edition presents up-to-date information on the maps and includes the new Homestead Lease and Homestead Sale regulations resulting from recent amendments to the Public Lands Act.

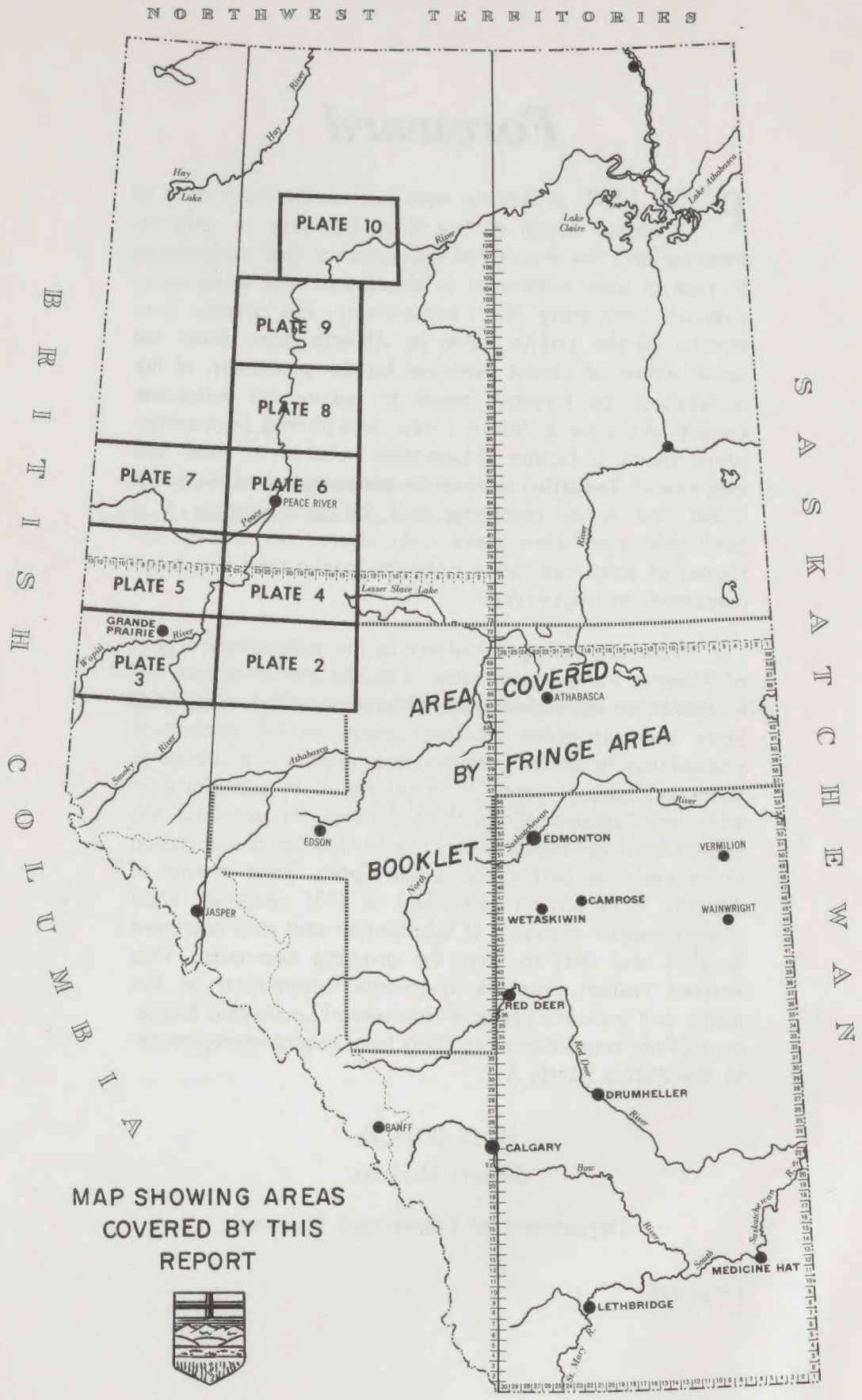
H. G. JENSEN,

Deputy Minister,

Department of Lands and Forests.

June, 1961.

PLATE 1



MAP SHOWING AREAS COVERED BY THIS REPORT

DEPARTMENT OF LANDS AND FORESTS
TECHNICAL DIVISION MARCH 1961

PUBLIC LANDS OPEN FOR SETTLEMENT

IN THE

PEACE RIVER DISTRICT OF ALBERTA

By

WM. ODYNSKY,
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INTRODUCTION

The Peace River district contains relatively large tracts of public land that are suitable for agricultural development. Most of these were reported and described in the Research Council reports titled "Preliminary Soil Survey Adjacent to the Peace River, Alberta West of Dunvegan", and "Preliminary Soil Survey of the Peace River-High Prairie-Sturgeon Lake Area." They were published in 1930 and 1935 respectively, and served a very useful purpose as a guide to settlement in this area. Since that time, however, many of the more open and more readily accessible of the recommended areas have became unavailable. Furthermore, the Alberta Government has withdrawn a large proportion of the Peace River district from settlement and disposition. Accordingly, it is felt that an inventory of the public lands open for settlement in the northwestern part of Alberta may serve as a useful guide to both land seekers and administrators interested in the development of the soil resources of this area.

The purpose of this report is to indicate those areas of public land in the Peace River district that are presently open for settlement, to give a brief generalized description of those areas and of some of the features pertinent to settlement, and to give the regulations governing the leasing of public lands in Alberta. Included in this report are sketch maps showing the location of the Peace River district, the location of some of the map plates in this district, and the present distribution of public land, alienated land, and land withheld from settlement in each of these plates.

Much of the information in this report is, of necessity, preliminary in nature and quite tentative. More complete information regarding the soils in the various portions of the district will be available only on completion of soil surveys to supplement the original exploratory information. The Alberta Soil Survey is engaged in making a more detailed study of the soils in the Peace River district and to date has completed mapping the areas indicated in Plates 2, 3, 4, 5 and 7. Similarly, other information presented in Plates 2 to 10 inclusive is subject to change. The boundaries of the areas withheld from settlement may be altered on information received from both soil and forestry surveys. The steady demand for land in this district will continue to

alter the distribution and the size of the areas available for settlement. However, verification of the available public land can always be obtained from the Department of Lands and Forests.

GENERAL DESCRIPTION OF THE AREA

Location and Transportation

The Peace River district consists essentially of that portion of Alberta that is drained by the Peace river and its tributaries. It lies in the northwestern part of the province (See Plate 1) and comprises an area of approximately 50 million acres. This entire area is served by the Northern Alberta Railways which has branches at McLennan. The main branch goes to Rycroft, Grande Prairie and Dawson Creek, B.C., while the other branch goes to Peace River, Fairview and Hines Creek. The shipping distance from these points to Edmonton is as follows: McLennan 267 miles, Rycroft 357 miles, Grande Prairie 407 miles, Dawson Creek 495 miles, Peace River 317 miles, Fairview 366 miles and Hines Creek 382 miles. A highway connects Edmonton with Dawson Creek via Sturgeon lake and Grande Prairie and with Fairview and Hines Creek via Triangle and Peace River. In the western part of the district, a gravelled highway connects Fairview with Grande Prairie, while in the northern part there is a gravelled highway from Grimshaw to Hay River that serves the fishing and mining industries of Great Slave lake and Yellowknife.

Climate

Meteorological records indicate that over most of the district the precipitation is quite variable and generally not as favorable as that of central Alberta. It varies from about 18 inches in the southern part at Beaverlodge and High Prairie to about 12 inches in the northern part at Fort Vermilion. The average annual precipitation at Edmonton is not much different from that received at Beaverlodge but while Edmonton receives approximately 80 per cent of its precipitation during the previous fall and growing season, Beaverlodge receives only about 65 per cent of its precipitation during that time.

Wind records indicate much higher average annual wind mileages in this district than in central Alberta. While the records are of very short duration, and may not be representative of the long time average, they show that Keg River has 56,000, Fairview has 62,000, and Beaverlodge has an average of about 79,000 wind miles per year, as compared with Lacombe's long time average of 43,000 wind miles per year. The Canada Experimental Farm records further show that at Beaverlodge the average wind velocity is 8.3 miles per hour and ranges from about 7 miles in the winter months to a peak of 10.5 miles in May at a time when farm lands are particularly vulnerable to wind erosion.

The growing season and the frost free period in the Beaverlodge-High Prairie area average about 110 days and 90 days respectively, and compare favorably with those of Edmonton. Both the growing season and the frost free period are somewhat shorter at Fort Vermilion, but it would appear that crops mature earlier in this northern part of the area. Experimental Farm records show that the average date of first seeding of spring wheat is April 28 at Lacombe, April 28 at Beaverlodge, and May 1 at Fort Vermilion while the average date of first harvesting of spring wheat is August 26 at Lacombe, August 25 at Beaverlodge and August 21 at Fort Vermilion.

Vegetation

The native vegetation over most of this area consists of a mixed deciduous and evergreen woodland in which peat bogs are of common occurrence. Of the trees, aspen poplar is the most common while balsam poplar, birch, willow, alder, spruce and pine occur either in mixtures or as the dominant cover of local areas. In the area presently open for settlement much of the native cover has been destroyed by fires and there are very few acres adjoining settlement in which merchantable stands of timber can be found. In addition to the wooded areas, there are fairly extensive parkland areas that consist of woodland bluffs, low shrub cover and varying amounts of open grassland.

In the poorly drained areas, the native vegetation consists of such moisture-loving species as the sedges, mosses, labrador tea, scrub birch, willow, black spruce and tamarack. Many of the low areas have an ac-

cumulation of organic material (peat) overlying the mineral subsoil. Those whose peat is derived from the decomposition of sedges are referred to as sedge peat bogs while those whose peat is derived from the decomposition of mosses are referred to as moss peat bogs or muskegs.

Land Improvement

For the most part the removal of tree cover is a major handicap in the preparation of land for agricultural purposes. Until fairly recently it has been necessary for the settlers in wooded areas to improve their farms by slow, laborious hand methods. By this means the average settler was seldom able to improve more than about 5 acres per year. Thus, according to the 1946 census returns, only about one-quarter of the alienated land in the Peace River district was improved and being farmed at that time.

With the introduction of adaptable power machinery, methods are being developed to bring about a rapid, efficient and inexpensive improvement of bush lands. Brush clearing by crawler tractor equipment is rapidly becoming the full-time occupation of many operators within this area. The costs of clearing, piling and breaking vary with the size of the outfit and the efficiency of the operator. Settlers may be able to effect a considerable saving in the cost of land improvement if they are prepared to accept the respon-

sibility of burning the slashed tree cover and of picking roots and preparing the land after breaking.

Irrespective of the methods employed, it is becoming increasingly apparent that fairly wide strips of native cover must be left at least along the north-south fence lines and adjacent to natural reservoirs and drainageways. Wherever the cover warrants, additional woodlots should be left on each farmstead. Such practices will help curtail the serious soil losses from wind and water erosion and conserve the rapidly diminishing ground water supplies in many parts of this area.

Water Supply

In most of the Peace River district the lack of a suitable well water supply has long been of major concern. Geological studies reported in Research Council Report, number 21, have not been very encouraging in this respect. Except for relatively few areas it would appear that an adequate and economical water supply can be obtained only from surface supplies such as dugouts, dams and streams. Dugouts and dams seem to be satisfactory sources of water supply if they are of adequate size and properly looked after. Throughout the district the amount of spring run-off is generally adequate to fill the dugouts providing that care is taken in selecting suitable sites.

DESCRIPTION OF AREAS OF PUBLIC LAND OPEN FOR SETTLEMENT

As stated in a preceding part of this report, there are approximately 50 million acres in the area outlined as the Peace River district. (See Plate 1). The major portion of this district, however is withheld from settlement and disposition pending further information relative to its soil and forest resources. In that portion of the district that is presently open for settlement there are about 10 million acres of which about 6 million acres are already alienated. Thus, in the Peace River district there are approximately 4 million acres of public land presently open for settlement. This land occurs in scattered patches of varying size adjoining the settled portions of the area and consists of a variety of soils some of which may not be suitable for agricultural purposes. In addition, a considerable proportion of the areas open for settlement is not yet subdivided and consequently not immediately available for agricultural development. The following is a brief, generalized description of the areas of public land that are open for settlement in each of the map plates indicated in Plate 1.

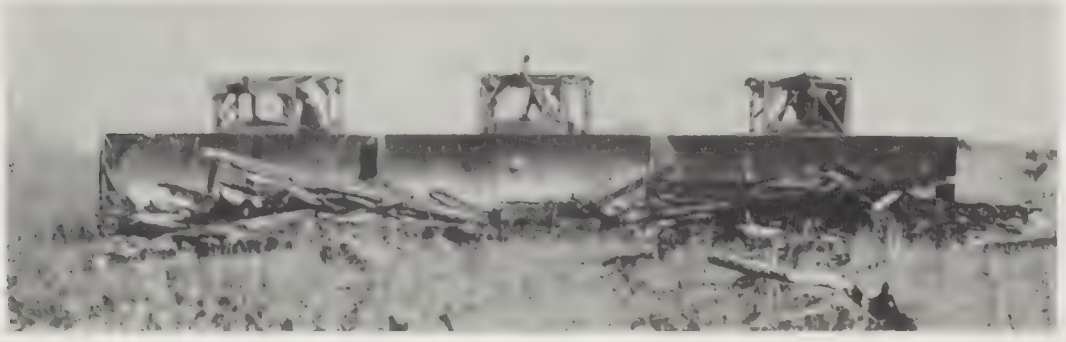


Plate 2.

Location : The area indicated is in the southeast portion of the Peace River district. (See Plate 1). It includes townships 65 to 72 in ranges 14 to 27 west of the fifth meridian.

Transportation Facilities : The main highway to Grande Prairie traverses the central and the northwestern portion of this area. There is also the main highway to Edmonton that cuts directly south from Valleyview. Shipping points on the Northern Alberta Railway are about 10 miles north of the northeastern part of the area, while in the vicinity of Sturgeon lake the distance from shipping points, either to the east or to the west, is approximately 60 miles.

Water Supply : In some of this area, particularly in the vicinities of Snipe lake and Sturgeon lake, the settlers are having some success in obtaining a reasonably good well-water supply.

Public Land Open for Settlement

Total Acres : There are approximately 300,000 acres of public land open for settlement in this area. Most of this land is found adjacent to the settlements along the West Prairie river ("Banana Belt"), near Snipe lake, Valleyview, Sturgeon lake, Clarkson Valley and Crooked Creek. (See Plate 2).

General Description of Soils : For the most part the soils are moderately developed Grey Wooded, loams or heavy loams that have a thin, dark colored surface horizon, and a 4 to 6 inch ashy, grey, leached horizon overlying a brownish colored clay loam subsoil that is sometimes fairly stony. Occasional stony or gravelly ridges are common in the areas north and east of Snipe lake. In some parts of this sheet, the soils have a darker colored and thicker surface horizon and a heavy textured subsoil that has few to no stones. Such soils are found in parts of townships 71 and 72 ranges 16 and 17, parts of townships 69, 70 and 71 ranges 19 and 20, parts of townships 71 and 72 ranges 21 and 22, parts of townships 67, 68 and 69 ranges 22 and 23 and in small areas along some of the valleys adjacent to Sturgeon Heights, Clarkson Valley and Crooked Creek.

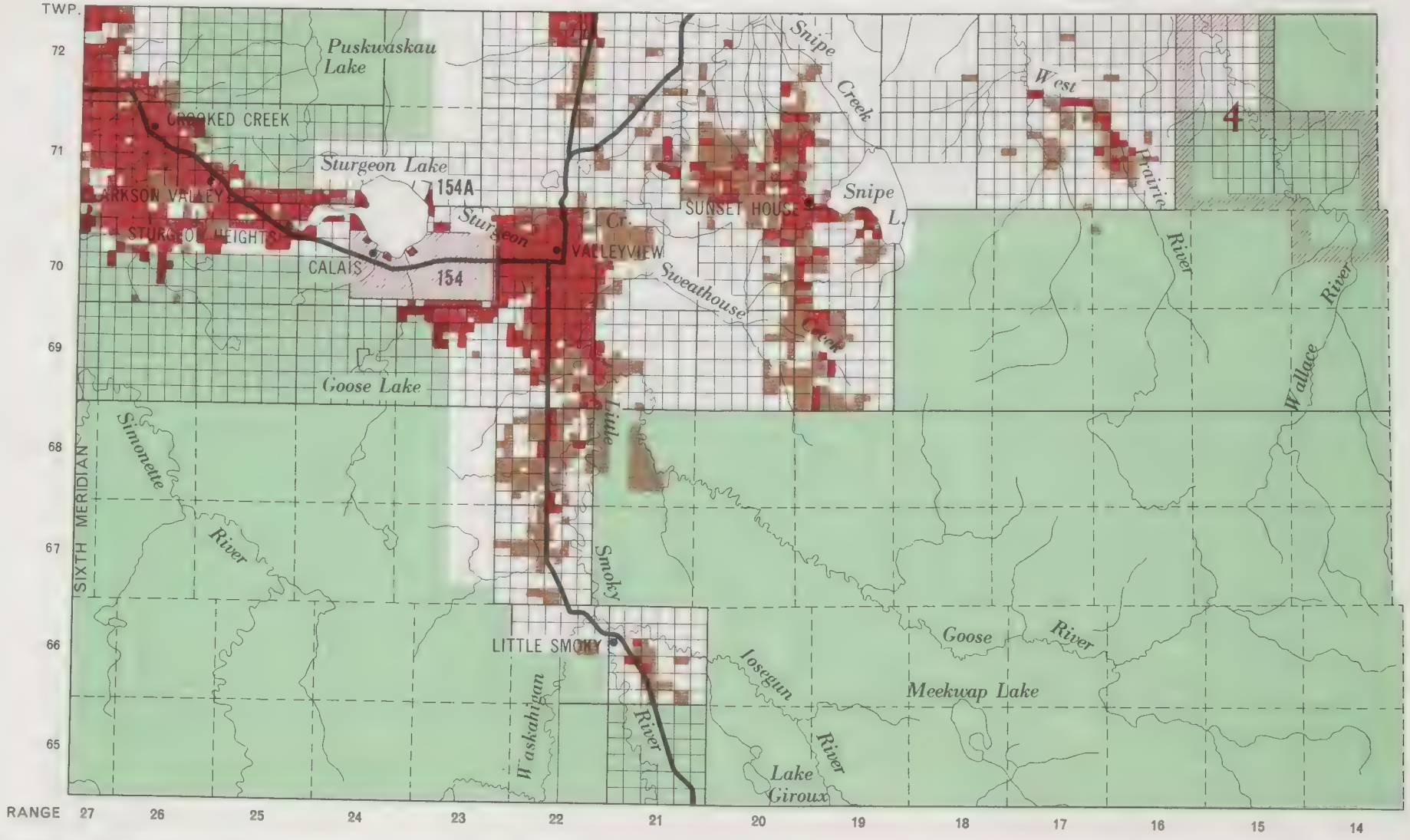
Topography : The areas north and west of Sturgeon lake have a variable, undulating to rolling topography in which fairly high ridges are of common occurrence. In the remainder of the area the topography consists of long, fairly uniform, undulating to gently rolling slopes with numerous lower lying, ill-drained basins.

Tree Cover : A fairly dense cover consisting of both green and fire-killed poplar and occasional spruce is common to much of this area. The better soil areas, that were previously referred to, generally have the lightest cover and some are fairly open. Low lying areas are of common occurrence and those having an accumulation of moss peat (muskegs) are particularly prevalent in many portions of this area.

Acres of Arable Land : Since the larger of the moss peat areas should not be farmed and since gravelly and stony areas make up a considerable proportion of some parts of the area, it would appear that there are only about 75,000 acres of public land in this area that are suitable for agricultural development. However, a considerable proportion of this land may not be immediately available for settlement either because of fairly heavy tree cover or because it is not yet subdivided. Descriptions and locations of some of these areas may be found in recent soil survey reports.

PLATE 2

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 3

Location: This area is in the southwest portion of the Peace River district. (See Plate 1). It includes townships 65 to 72 in ranges 1 to 13 west of the sixth meridian.

Transportation Facilities: The northern part of this area is well supplied with roads and is traversed by the main branch of the Northern Alberta Railways. In addition there is a bridge crossing over the Wapiti river south of Grande Prairie, and a ferry crossing south of Wembley.

Water Supply: Until fairly recently many parts of the northern and northwestern portions of this area seemed to have an adequate groundwater supply. This supply appears to be diminishing and in many cases it has been necessary to construct supplementary dams or dugouts.

Public Land Open for Settlement

Total Acres: There are about 200,000 acres of public land presently open for settlement in this area. Most of this land is found in the outer fringes adjoining the present settled areas of Debolt, Bezanson, Sexsmith, Grande Prairie, Beaverlodge, etc. (See Plate 3).

General Description of Soils: Most of the fringe areas have moderately to strongly developed Grey Wooded soils that are characterized by a fairly thick, ashy, grey leached horizon. In narrow areas bordering the Wapiti river south of Grande Prairie and south of Benzanson as well as in some of the area near Goodwin the soils are very sandy. Stones are quite plentiful in some portions of the area west of Beaverlodge near Rio Grande and Lymburn. One of the darker colored more desirable soil areas is that found adjoining Bridge creek in parts of township 69 ranges 7 and 8. Additional information may be found in recent Alberta Soil Survey reports.

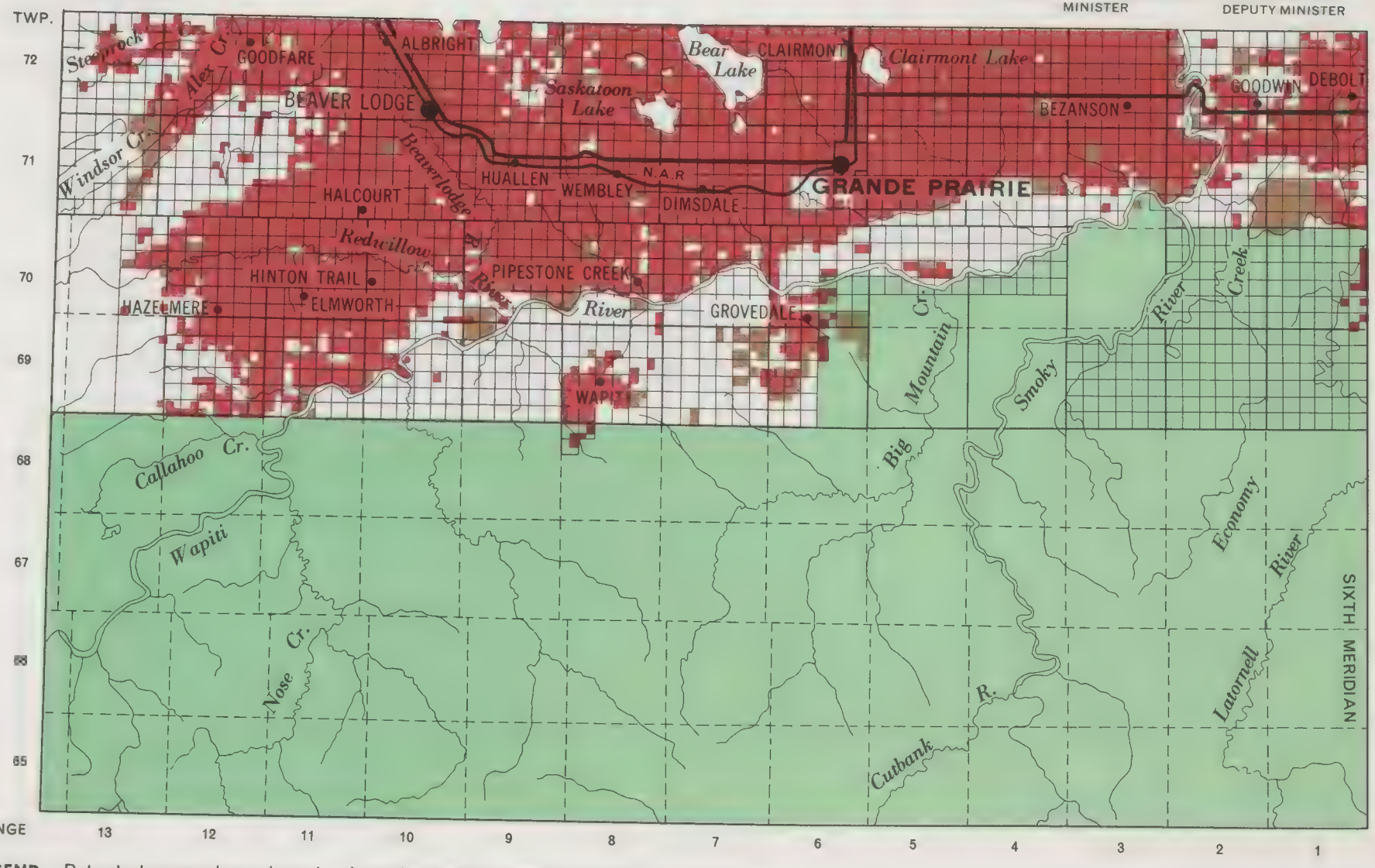
Topography: The public land open for settlement has a variable, gently rolling to rolling topography. In the western portion and some of the southern portions of the area fairly high ridges are of common occurrence.

Tree Cover: There is a fairly heavy tree cover in much of the area that is presently open for settlement. It consists of a mixture of poplar, willow, birch and in some places some fairly good stands of spruce and pine. Small, fairly open areas are found throughout the sheet and particularly on the better soils adjacent to Bridge creek.

Acres of Arable Land: It is estimated that there are only about 50,000 acres of arable land in that portion of this area that is presently open for settlement. The remainder is either too rough, stony or sandy for agricultural development. Some of the land that is arable has yet to be subdivided while some has a fairly heavy tree cover. As a result only a relatively small proportion of the arable public land is immediately available for settlement in this area.

PLATE 3

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



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Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 4

Location: The indicated area lies immediately north of the area shown in Plate 2 and consists of townships 73 to 80 inclusive in ranges 14 to 26 inclusive west of the fifth meridian. (See Plate 1).

Transportation Facilities: Both the railway and the highway outlets of the Peace River district enter this area just south of Lesser Slave lake. The central and northwestern parts of the area are fairly well supplied with roads and most of the area is or could be made readily accessible to present railroad and highway facilities.

Water Supply: To assure themselves of an adequate water supply the settlers in most of this area have had to resort to the construction of dugouts or dams. However, suitable ground water supplies have been found near High Prairie and Leicester in the eastern half of the area and in the Fish Creek and Whitemud Creek settlements in the southwestern part of the area.

Public Land Open for Settlement

Total Acres: There are approximately 400,000 acres of public land open for settlement in this area. (See Plate 4).

General Description of Soils: In the eastern and southern portions of this area the soils are generally Grey Wooded, loams to heavy loams that have a thin, dark colored surface horizon, a 4 to 6 inch grey, ashy, leached horizon and a subsoil that is fairly heavy textured, often gritty and sometimes stony. In some of the areas south of Winagami lake, south of Culp, south of Tangent and south of Englesham the soils are very sandy. In the northwestern part of this area brownish colored silty loams and silty clay loams are of common occurrence.

Topography: For the most part, the public land has long, undulating to gently rolling slopes. Much of the western part of the area, west of the Smoky river has a variable, gently rolling to rolling topography. Low, ill-drained areas are of very common occurrence throughout this area.

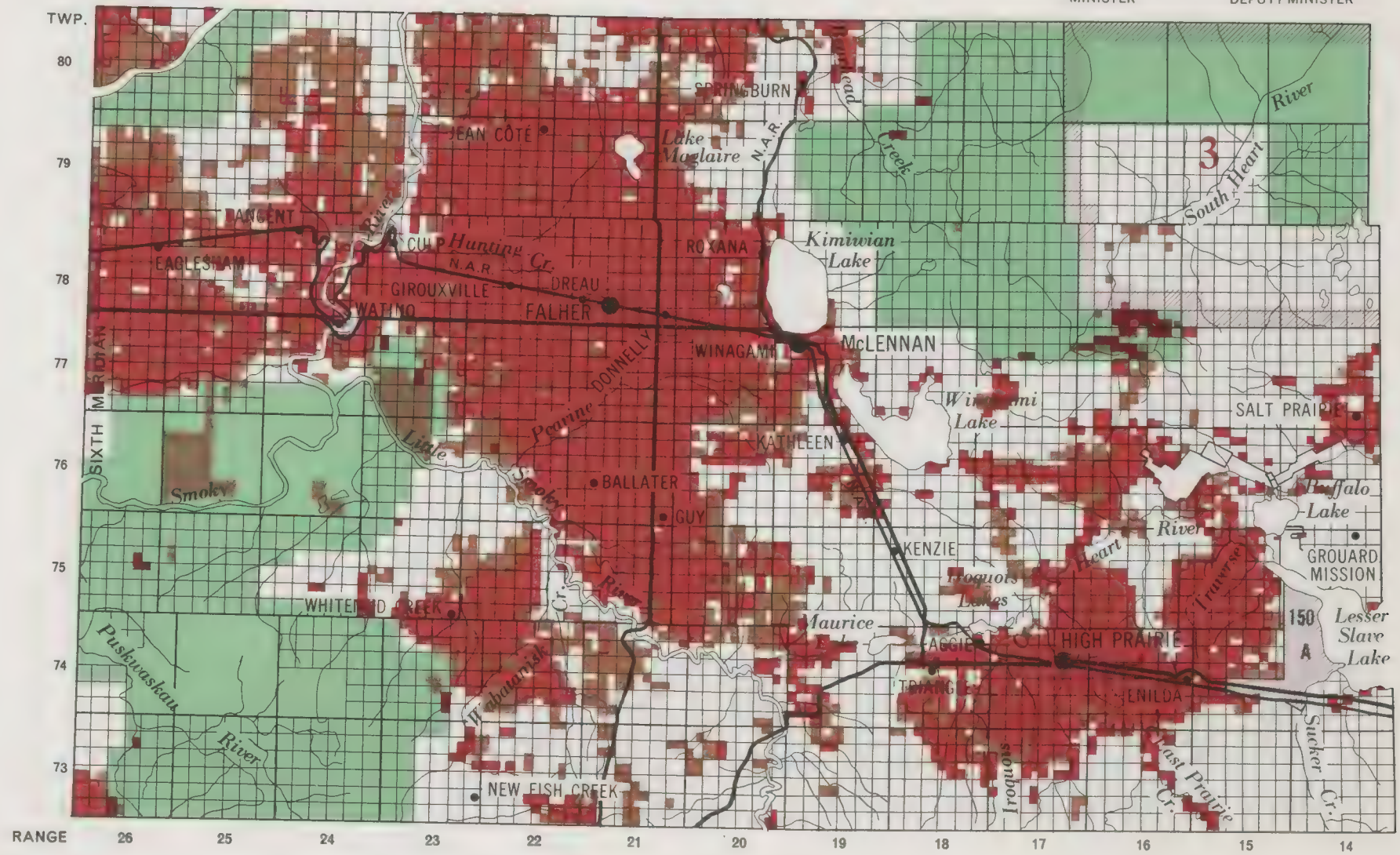
Tree Cover: There is very little green tree cover in this area. For the most part the poplar, spruce, and willow have been fire-killed and some portions of the area are fairly open. In the eastern half of the area the low, ill-drained areas often have an accumulation of moss peat, while in the western half of the area most of the low spots have an accumulation of sedge peat.

Acres of Arable Land: There are about 200,000 acres of arable public land in this area. The better areas are to be found adjacent to High Prairie, Leicester, Triangle, McLennan, Reno, Whitemud Creek and on the Alberta Land Clearing Project north of Tangent and Eaglesham. Descriptions and locations of some of these areas may be found in recent soil survey reports.

Just east of the area indicated in Plate 4 there are about 40,000 acres of public land open for settlement of which about 20,000 acres are suitable for agricultural development. Most of this land is adjacent to the south shore of Lesser Slave lake and has a fairly heavy tree cover. The suitable land is found in tracts of varying size scattered throughout an area in which fur farming is well established.

PLATE 4

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 5

Location: This area lies immediately west of that shown in Plate 4 and north of the area in Plate 3. It consists of townships 73 to 80 inclusive in ranges 1 to 13 inclusive west of the sixth meridian. (See Plate 1).

Transportation Facilities: The Northern Alberta Railway traverses the east-central portion of the area as far as Spirit River and then proceeds south to Grande Prairie and across the southwestern portion of the area through Hythe and Lymburn. Much of the northwestern portion of the area is therefore an appreciable distance from railway facilities. A gravelled highway traverses the central and southern portions and a gravelled highway traverses the northern portion of the area. Thus, practically all of the public land in this area is within relatively easy access of present highway facilities.

Water Supply: In most of the northern half of this area it would appear that the construction of dugouts or dams is necessary to insure an adequate water supply. However, the southern part of the area — south of the Saddle hills — is one of the few portions of the Peace River district in which a good water supply can be obtained from dug or drilled wells.

Public Land Open for Settlement

Total Acres: There are about 200,000 acres of public land open for settlement in this area. Most of this land is found adjoining the Birch and Saddle hills and to the west of Spirit River. (See Plate 5).

General Description of Soils: For the most part the soils are Grey Wooded, heavy loams to clay loams that have a moderately thick, grey, leached horizon and a fairly uniform, brownish grey heavy textured subsoil. North of Codesa and Wanham, the soils are brownish colored silt loams to silty clay loams that have very few to no stones.

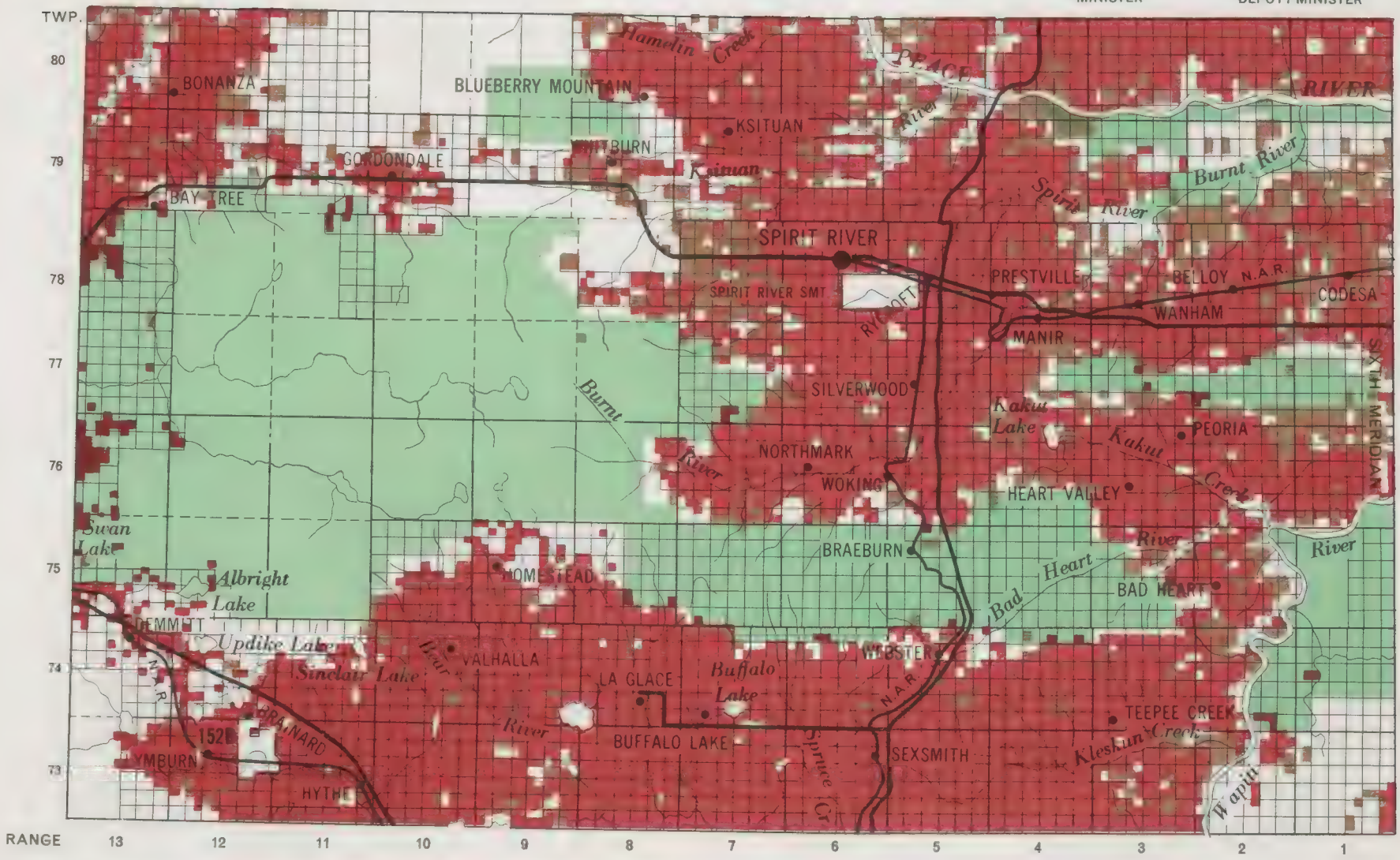
Topography: In the area north of Codesa and Wanham the topography is variable and characterized by numerous low, gently rolling humps. In the remainder of the area the topography consists of the long, fairly uniform slopes and benches that are adjacent to the Birch and Saddle hills. Deep, wide coulees and low-lying, poorly drained areas are of common occurrence throughout this area.

Tree Cover: In much of the western portion of this area there is a medium to fairly heavy tree cover consisting of both green and fire-killed poplar and occasional spruce bluffs. Fairly recent fires have destroyed most of the tree cover in the eastern part of the area.

Acres of Arable Land: There are about 75,000 acres of arable public land open for settlement in this area. This land occurs in patches of varying size scattered throughout the area. The largest patch is found west of Spirit River but much of it has a medium to fairly heavy tree cover and some of it is not yet subdivided. Further description of these areas may be found in recent soil survey reports.

PLATE 5

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 6.

Location: The area in Plate 6 lies immediately north of the area indicated in Plate 4 and consists of townships 81 to 88 inclusive in ranges 14 to 26 inclusive west of the fifth meridian. (See Plate 1).

Transportation Facilities: Both the Northern Alberta Railway and a gravelled highway traverse the southwest portion of the area passing through Nampa, Peace River, Grimshaw, Berwyn and Brownvale. In addition a gravelled highway traverses the northwestern portion of the area proceeding north from Grimshaw and through Dixonville en route to Hay River. Thus much of the land presently open for settlement is within relatively easy access of present transportation facilities.

Water Supply: Except for some of the southwest portions of the area it would appear that the construction of dams or dugouts is necessary to assure the settler of an adequate farm water supply. Adjacent to most of the area presently open for settlement, the settlers appear to have had little success in obtaining a suitable water supply from dug wells.

Public Land Open for Settlement

Total Acres: There are approximately 325,000 acres of public land open for settlement in this area. Most of this land lies adjacent to the Peace river and near the settlements at Reno, Judah, Three Creeks, Chinook Valley and Dixonville. (See Plate 6).

General Description of Soils: For a distance of about 4 to 6 miles from the banks of the Peace river the soils are brownish colored silt loams and silty clay loams that have very few to no stones. Sandy patches occur in some portions of these areas. Both east and west of the brown areas, the soils are Grey Wooded loams that have a 4 to 8 inch leached horizon and a gritty, often stony, heavy loam to clay loam subsoil. Gravelly or stony ridges are of common occurrence in many parts of these outlying areas.

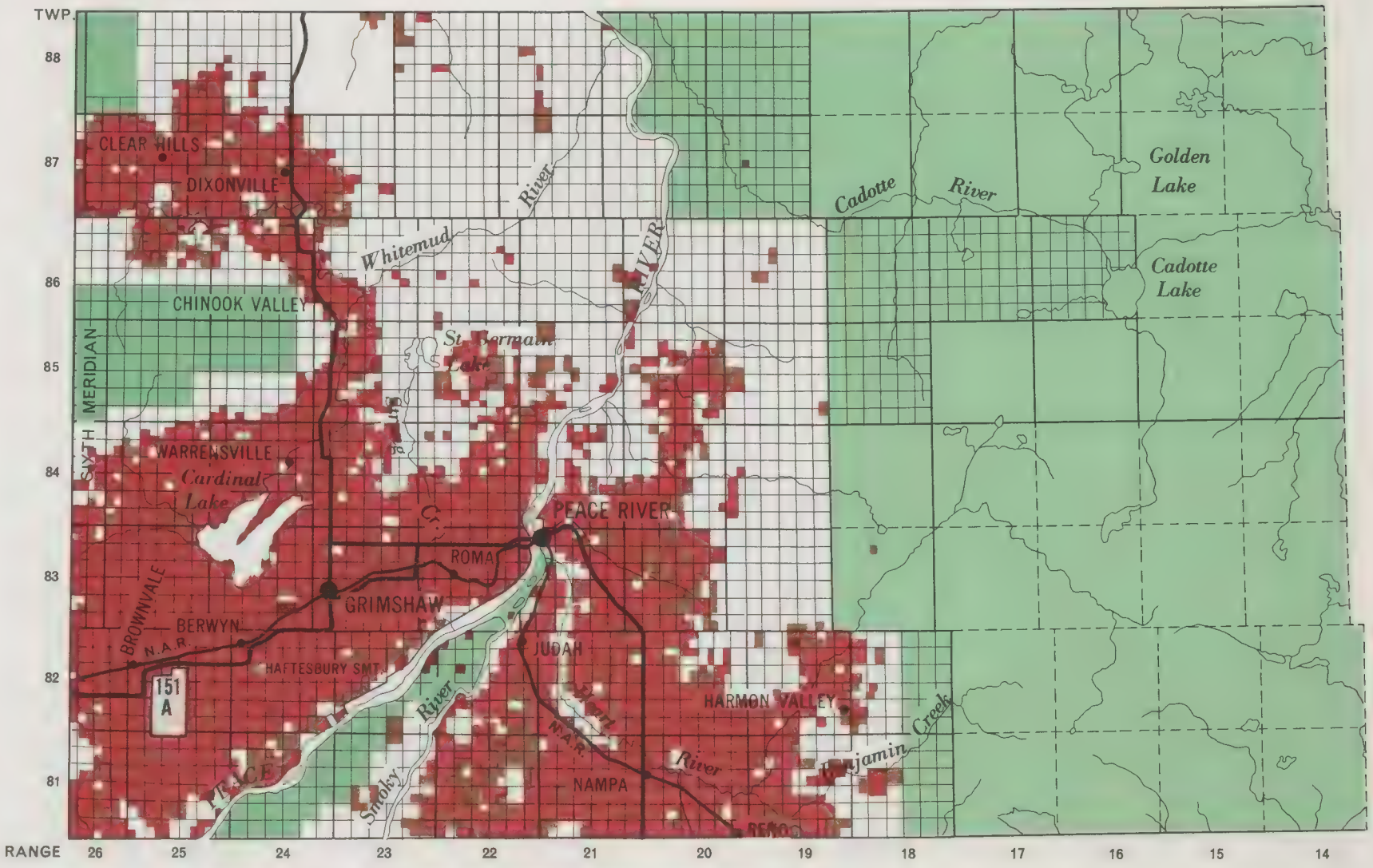
Topography: In most of the area the topography is quite variable and lacks the uniformity characteristic of much of the remainder of the Peace River district. Deep, wide coulees are common and low, ill-drained areas are of frequent occurrence.

Tree Cover: Much of the public land in this area has a medium to fairly heavy tree cover. This is particularly true of those portions of the area that are farther removed from settlement. Many of the low, ill-drained areas have an accumulation of moss peat and variable stands of black spruce.

Acres of Arable Land: There are only about 100,000 acres of arable land in that portion of the indicated area (Plate 6) that is open for settlement. The better areas are found in parts of township 81 range 22, parts of townships 84 and 85 in ranges 19 and 20 in some of the better drained valleys near Chinook Valley and Dixonville. Much of the remaining part of the area has a fairly heavy tree cover and as a consequence, is not immediately available for settlement.

PLATE 6

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 7

Location: This area lies immediately west of the area referred to in Plate 6 and north of the area in Plate 5. (See Plate 1). It includes townships 81 to 88 in ranges 1 to 13 west of the sixth meridian.

Transportation Facilities: The gravelled highway and the railway traverse the southeast portion of this area and proceeds north to Hines Creek. While the greater proportion of the area to the west has few roads, it is within easy access of either Spirit River or Hines Creek. A gravelled road connects Hines Creek to Fort St. John, B.C.

Water Supply: Throughout most of this area it would appear that an adequate farm water supply can be obtained only through the construction of dugouts or dams.

Public Land Open for Settlement

Total Acres: There are approximately 700,000 acres of public land open for settlement in this area. It adjoins the present settled areas near Whitelaw, Fairview, Hines Creek, Worsley, Clear Prairie, Cherry Point, Bonanza and Blueberry Mountain. (See Plate 7).

General Description of Soils: East of the Hines creek (in range 5), the soils are mostly Grey Wooded, loams and sandy loams that have a fairly thick, grey, leached horizon and a brownish colored, often stony, clay loam subsoil. Stony, gravelly, or sandy ridges are of common occurrence. Sandy areas occur south of Hines Creek in the vicinity of Gage.

West of the Hines creek and both north and south of the Peace river, the soils are a variable mixture of both Dark Grey Wooded and Grey Wooded clay loams and loams. They have a variable thickness of dark colored surface soil, a grey, leached horizon that rarely exceeds a thickness of 6 inches and often a dark colored, heavy textured subsoil in which stones are of infrequent occurrence. Somewhat stonier and greyer soils are found in the northern, northwestern and southern portions of the area, while in parts of townships 82, 83 and 84 of range 7, a large proportion of the soils are quite gravelly and somewhat sandy. Organic soils, having an accumulation of moss peat (muskeg) are of common occurrence particularly in the western, central, and eastern portions.

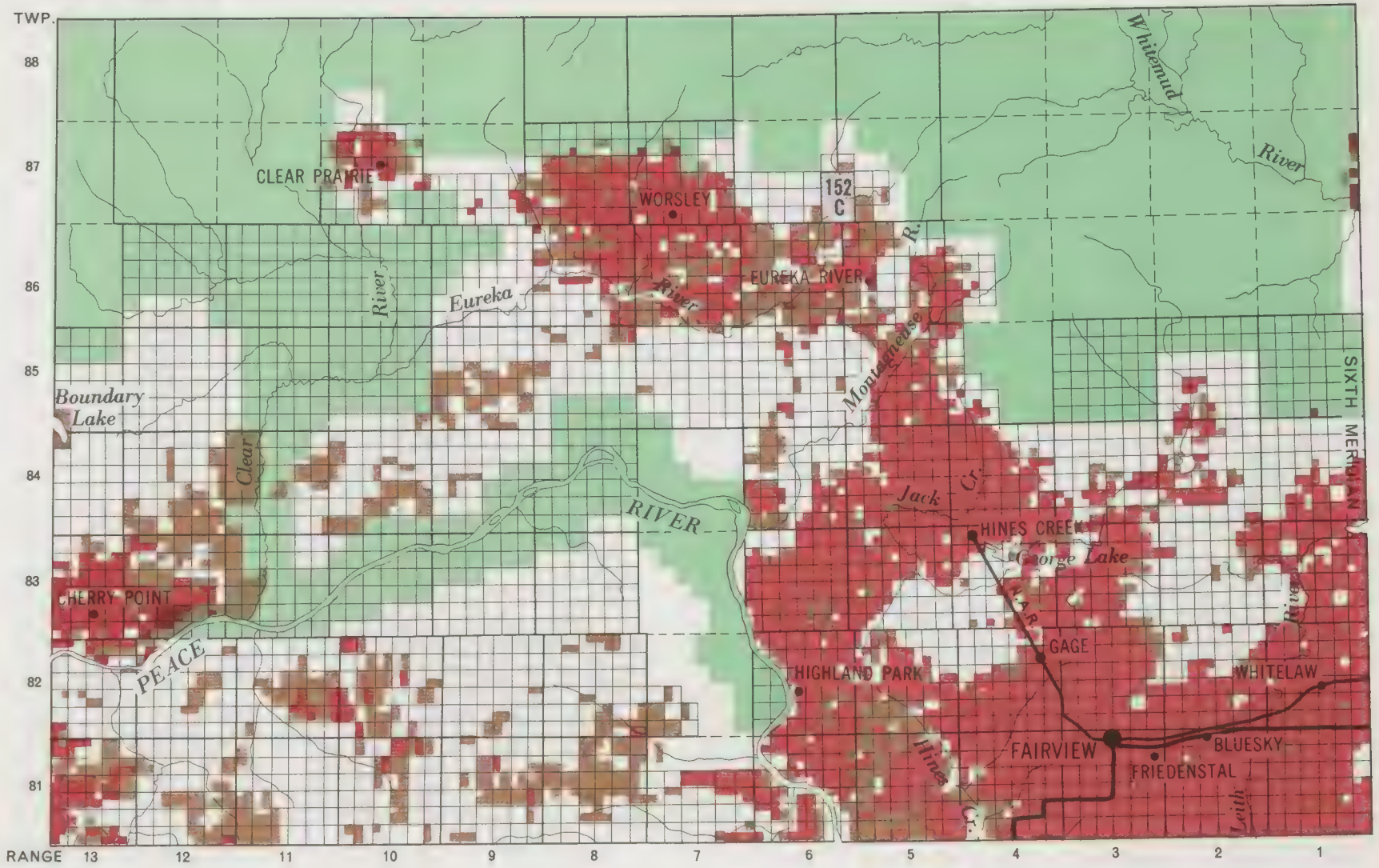
Topography: In the eastern part, the area is gently rolling and rolling with occasional undulating benches. The western part consists mainly of level to undulating somewhat ill-drained basins and long undulating slopes to these basins. The higher somewhat rougher heights of land are found in the northern and northwestern parts of the area and in parts of township 81 ranges 9 and 10 and parts of township 82 ranges 8 and 9. Deep, wide coulees are of very common occurrence in the western part of the area.

Tree Cover: Except for the northwest portion of this area, the tree cover is mostly fire-killed and much of the southwestern part is fairly open.

Acres of Arable Land: There are approximately 425,000 acres of arable public land open for settlement in this area. The greater proportions of this land is found in the western portion both north and south of the Peace river. Additional information may be obtained from Alberta Soil Survey.

PLATE 7

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
. Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH 1961

Plate 8

Location: The indicated area lies immediately north of the area referred to in Plate 6 and includes townships 89 to 96 in ranges 14 to 25 west of the fifth meridian. (See Plate1).

Transportation Facilities: The gravelled highway from Grimshaw to Hay River passes through the west-central portion of this area. The nearest railway shipping point is at Grimshaw, a distance of approximately 70 miles from the northern edge of settlement at the Meikle river.

Water Supply: Some settlers in this area have been successful in obtaining an adequate water supply from dug wells. However, it would appear that in much of this area the construction of dams or dugouts may be necessary in order to obtain an assured farm water supply.

Public Land Open for Settlement

Total Acres: Adjoining the settled areas near North Star, Manning and Hotchkiss there are about 150,000 acres of public land that are open for settlement. (See Plate 8).

General Description of Soils: In the eastern portion of the area, adjoining the Peace river, the soils are brownish colored silty loams to silty clay loams that have few to no stones. In the western portions, the soils are Grey Wooded, loams to clay loams that have a fairly thick, grey, leached horizon and a brownish grey clay loam subsoil which usually has some stones. That portion of the area that is north of the Meikle river has a mixture of both brownish colored silty clay loams and somewhat darker colored, fairly heavy textured meadow soils.

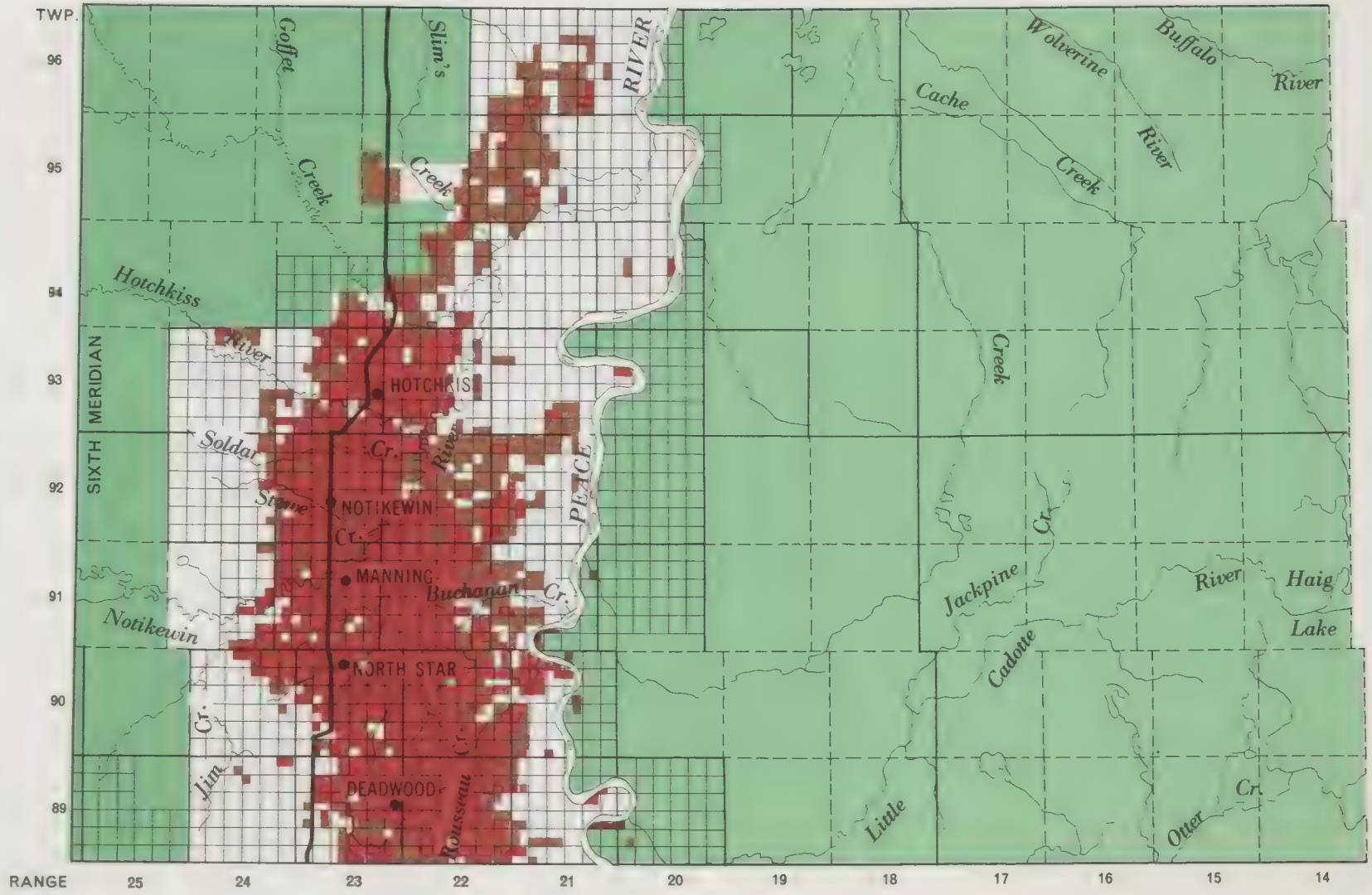
Topography: A somewhat "humpy" gently rolling to rolling topography is common to many parts of the eastern portion of the area. In the western portion the topography usually consists of long, undulating to gently rolling slopes that adjoin the Manning-North Star basin. Coulees, adjacent to the Peace river and its tributary streams, cut up a considerable proportion of the eastern part of this area.

Tree Cover: A fairly large proportion of the public land open for settlement in this area has a medium to fairly dense stand of both green and fire-killed poplar and occasional spruce. The northern part of the area, north of the Miekle river, has a fairly light cover consisting of occasional poplar and spruce bluffs and fairly extensive willow flats.

Acres of Arable Land: It is estimated that there are approximately 50,000 acres of arable public land open for settlement in this area. Most of this land is found adjacent to the present settled areas.

PLATE 8

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH, 1961

Plate 9.

Location: This area lies immediately north of that in Plate 8 sheet and includes townships 97 to 104 in ranges 13 to 25 west of the fifth meridian. (See Plate 1).

Transportation Facilities: The Grimshaw-Hay River highway traverses the western portion of this area — a short distance east of Keg River. The closest railway shipping point is at Grimshaw, about 125 miles south of Keg River. The Peace river is navigable by river boats and in the past much of the produce of this area was shipped up the river to Peace River.

Water Supply: The settlers in this area, particularly near Keg River, have had some success in obtaining a suitable water supply from shallow dug wells.

Public Land Open for Settlement

Total Acres: In the vicinity of Keg River, Carcajou and Buffalo Head Prairie there are about 300,000 acres of public land that are open for settlement. (See Plate 9).

General Description of Soils: In much of this area the soils are formed on the terraces and flood plain deposits associated with the Peace river and some of its tributary streams. They are yellowish brown to dark brown sandy loams to clay loams in which there is usually a fairly firm sandy clay loam or clay horizon at depths of 12 to 16 inches below the surface. Thin peat and muck soils are found in many of the low-lying, ill-drained areas and some of them appear to be slightly saline.

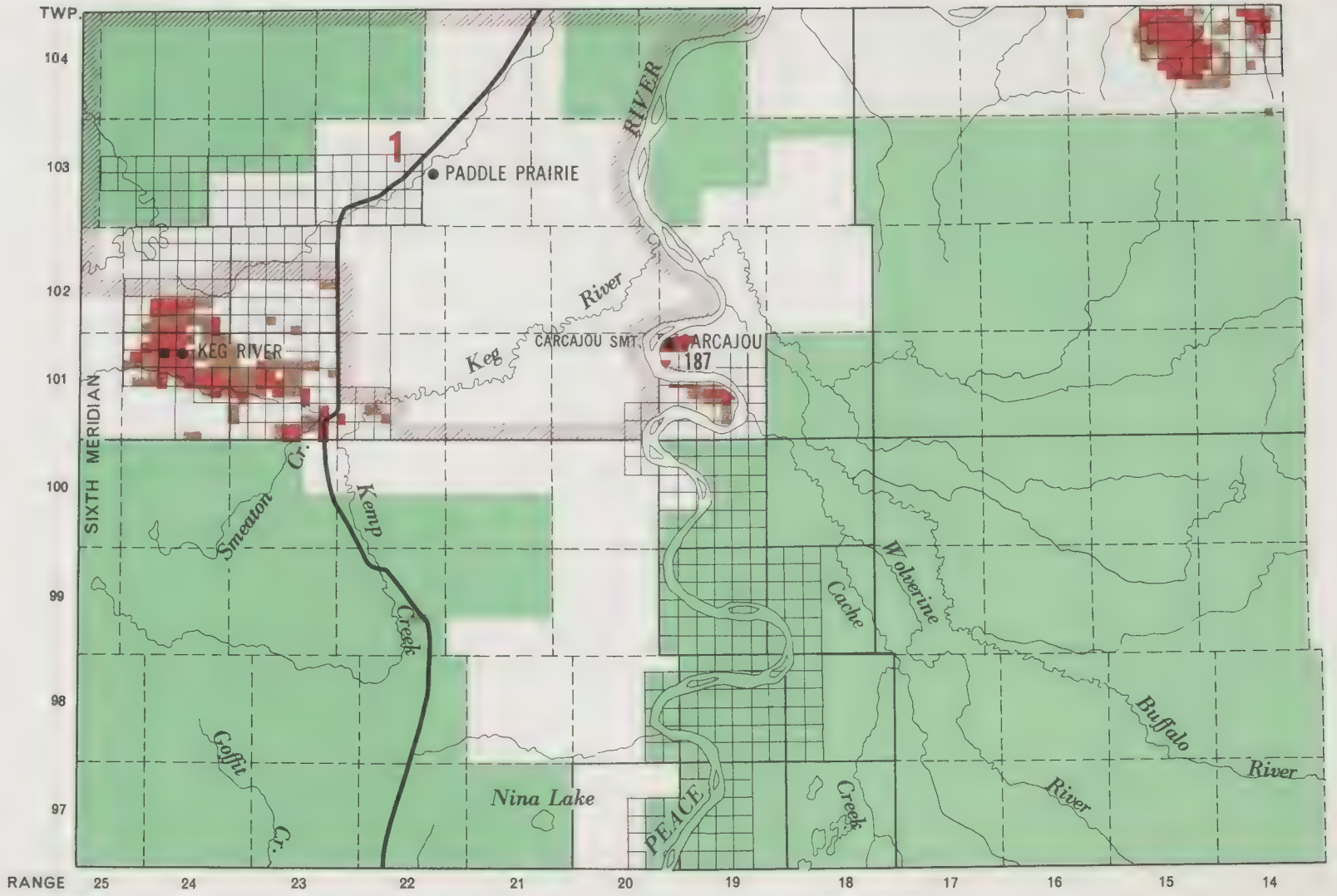
Topography: In most of the area that is open for settlement, the topography is generally level to undulating. Low, ill-drained areas are of common occurrence. The coulee banks associated with the streams and rivers in this area are not as deep nor as wide as they are farther south.

Tree Cover: The tree cover on the terraces and flood plains is quite variable. Mixed stands of fire-killed and green poplar and occasional spruce and pine bluffs are common. Fairly open prairies or parklands are found in tracts of varying size, scattered throughout this area.

Acres of Arable Land: A considerable proportion of the arable land in this area has been reserved for a Metis colony. However, there are approximately 175,000 acres of arable public land adjacent to the Reserve in this area. Only a small proportion of this land is surveyed and available for settlement. Land surveys have yet to be made in many parts of this area and it is probable that this and other northern areas may not be subdivided until the completion of surveys in some of the other portions of the Peace River district.

PLATE 9

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH, 1961

Plate 10.

Location: The indicated area lies north and east of the area referred to in Plate 9. For the purposes of this report this area forms the northern boundary of the area presently open for settlement in Alberta. (See Plate 1). It includes the area adjacent to Fort Vermilion and consists of townships 105 to 112 inclusive, in ranges 10 to 20 inclusive, west of the fifth meridian.

Transportation Facilities: The gravelled highway from Grimshaw to Hay River traverses the western portion of this area at a distance of about 50 miles west of Fort Vermilion. Produce from this area is trucked to Grimshaw, a distance of about 250 miles from Fort Vermilion.

Water Supply: For the most part, the settlers in this area have been able to obtain adequate water supplies from shallow dug wells. However, much of this water has been somewhat saline and unsuitable for domestic purposes.

Public Land Open for Settlement

Total Acres: There are about 650,000 acres of public land open for settlement in the vicinities of Fort Vermilion and Buffalo Head Prairie. (See Plate 10).

General Description of Soils: In most of the area, the soils are formed on the terraces and flood plain deposits associated with the Peace river and some of its tributary streams. They are yellowish brown to dark brown sandy loams to clay loams that have a fairly firm sandy clay loam to clay horizon at depths of 12 to 18 inches below the surface. Thin peat and muck soils are found in many of the depressional parts of the area and, in some cases, they appear to be fairly saline.

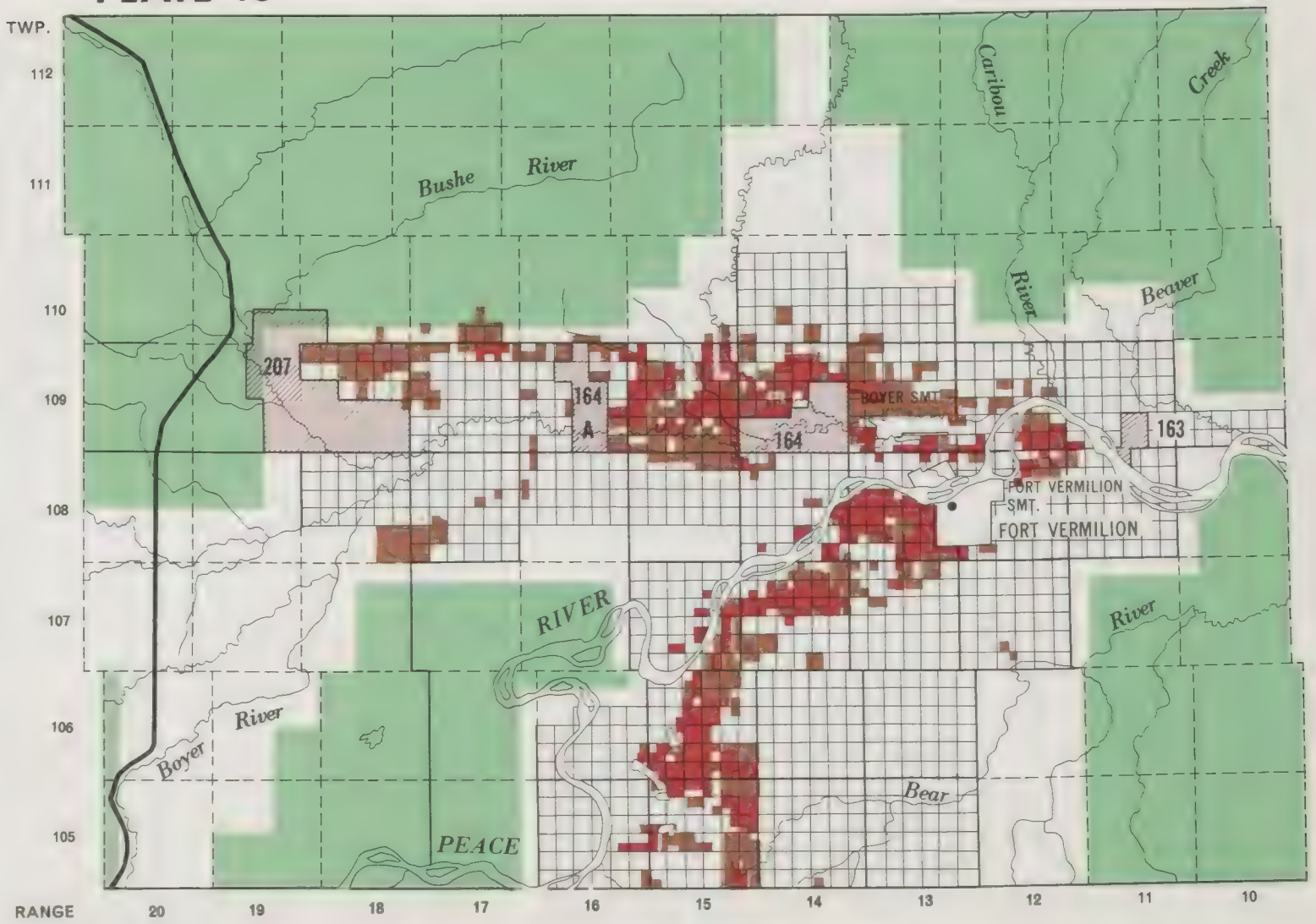
Topography: Most of the area has a level to undulating topography. Low-lying, ill-drained areas are of common occurrence.

Tree Cover: Much of the area has a light to medium tree cover consisting of both green and fire-killed poplar and willow with occasional spruce bluffs. Prairie-like or parkland areas are of common occurrence and a substantial proportion of the public land is fairly open.

Acres of Arable Land: There are approximately 450,000 acres of arable public land in this area. Some of it has a fairly heavy tree cover and some is not yet subdivided and, consequently, not available for immediate settlement. While very satisfactory yields of both grain and legume crops have been recorded in this area, settlement has been delayed due to the lack of more economical outlets for its agricultural products.

PLATE 10

DEPARTMENT OF LANDS AND FORESTS
HON. NORMAN WILLMORE, MINISTER — H. G. JENSEN, DEPUTY MINISTER



LEGEND Patented areas shown in red. Land held under lease and sale shown in brown.
Area withdrawn from settlement shown in green.
Public lands available for settlement shown in white.

TECHNICAL DIVISION
MARCH, 1961

Fertility and Land Use

From the foregoing general description of the soils in this area it will be apparent that most of them are Grey Wooded soils that have a moderately to fairly well developed leached horizon. Leaching of the surface horizons of soils results in a loss of some of the plant foods. The thicker the leached horizon the greater the loss of fertility. However, experiments conducted by the Soils Department University of Alberta, the Research Branch Canada Department of Agriculture, and the experience of many farmers within the Peace River district provide ample proof that a successful and permanent agriculture can be developed on such soils providing one practises a system of mixed farming that includes legumes and legume-grass mixtures in the crop rotation. Such a system, supplemented with applications of commercial fertilizer when needed, has given very satisfactory results.

In considering an effective and permanent cropping plan it must be borne in mind that much of this area is vulnerable to both wind and water erosion. The winds are fairly high and many of the soils on cultivation, have a loose powdery surface. The early introduction of fibre and organic matter will materially decrease the danger of losses from wind erosion. Some of the soils in this area have a loose, friable subsoil, while many have a compact, claypan type of subsoil. Fibre will help to bind the former soils and decrease their susceptibility to water erosion, whereas legumes will increase their fertility by increasing their supply of available nitrogen. In the claypan soils legumes will, in addition, help to open up the compact subsoil and thereby increase the feeding range of succeeding crops and improve the drainage and ease of water penetration. Suitable crop rotations will improve the fertility of the soils in this area and the retention or re-establishment of wind-breaks should materially reduce the damage resulting from soil erosion.

Details regarding recommended cropping practices, crop rotations, wind-breaks and suitable fertilizers can be obtained from the District Agriculturist, the Canada Experimental Farm at Beaverlodge, the Alberta Department of Agriculture and the University of Alberta.

Grazing Land

While this report has dealt primarily with public lands that are open for settlement, it is noteworthy that, in addition, some of the area that is withheld from settlement is nevertheless available for summer grazing. In the less heavily wooded portions there is usually a fairly good grass cover and, if water is accessible, they are desirable grazing areas. Settlers wishing to run livestock on any public land may do so on obtaining a grazing permit or grazing lease from the Department of Lands and Forests.

Summary

For convenience of reference some of the data presented in the foregoing part of this report are summarized in Table 1. Reference is made to the areas in which there is public land that is open for settlement purposes. The location of these areas is shown in Plate 1 at the outset of this report.

Table 1 — Estimated Total Public Land and Arable Public Land Open for Settlement in Various Parts of the Peace River District of Alberta.

Plate No.	Total Public Land Open for Settlement — acres —	Arable Public Land Open for Settlement — acres —
2	300,000	75,000
3	200,000	50,000
4	440,000	220,000
5	200,000	75,000
6	325,000	100,000
7	700,000	425,000
8	150,000	50,000
9	300,000	175,000
10	650,000	450,000
Total in the Peace River District	3,265,000	1,620,000

The data in Table 1, refer only to that portion of the Peace River district that is presently open for settlement. They are tentative and subject to change depending on the information obtained from continued exploratory and reconnaissance surveys. Furthermore, the steady demand for land in this area will continue to alter the acreage open for settlement in various parts of the Peace River district. It should be borne in mind, however, that the data refer only to public land and not to any alienated land that might be available for settlement purposes.

The data in column 3, Table 1, refer to those portions of the area (both subdivided and unsubdivided) in which the soils are suitable for agricultural development. They include not only that arable land which has a light to medium tree cover but also that which has a fairly heavy tree cover. Thus, despite the fact that the land is arable, a considerable proportion of it is not presently available for settlement purposes. According to the regulations, discussed in a following section of this report, arable land available for a homestead lease must be subdivided and must not have a tree cover that cannot be cleared economically. The tree cover in most of the areas is at least partially fire-killed. Each year much of that tree cover is destroyed, particularly in areas adjacent to settlement. In addition, land surveys are in progress in portions of the Peace River district, and it is understood the Government will continue the land surveys until the public lands recommended for settlement are subdivided.

The data in Table 1 show that there are approximately 1,620,000 acres of arable public land presently open for settlement in the Peace River district. This represents nearly 50 percent of the total public land open to application for settlement in this area.

SETTLEMENT POLICY
and
HOMESTEAD LEASE AND HOMESTEAD SALE REGULATIONS IN ALBERTA

Settlement Policy

For land administration purposes the province is divided into two areas, the settlement area and the forested area. It is the policy of the Government to limit new settlement of public lands to those lands in the settlement area which are suitable for agricultural development. They must be readily accessible or situated close to presently settled areas in which social services are available or could be made available at reasonable cost. For the guidance of prospective settlers and others, a small scale map of Alberta is distributed to show the boundaries of the areas of available public land and those areas that are withheld from settlement. The settlement policy is guided by a resolve to conserve the forest resources and to make the best use of the soil resources of Alberta.

By authority of The Public Lands Act and orders-in-council passed under authority of this Act, the department disposes of public lands by sale and under various forms of leases and permits. Public auction sales are held periodically to dispose of school lands and other lands not suited for homestead lease or homestead sale. Notices of such sales and the description of the lands for sale are given in the press. The greater proportion of the public land, however, is disposed of under various forms of leases and permits.

The Homestead Lease policy and Homestead Sale policy govern the disposal of most of the public land suitable for settlement purposes in Alberta. The regulations pertaining to the granting of homestead leases and homestead sales are printed in pamphlet form and are available on application to the Director of Lands, Department of Lands and Forests, Edmonton. However, for convenience of reference, the following excerpts will serve to acquaint the reader with some of the main features of the Homestead policy.

Homestead Lease Regulations.

Lands Available: Any vacant public land, other than school land or tax recovery land, which is located in the Homestead Lease area is available for the acceptance of an application. Before a lease is granted the area applied for must be inspected by an officer of the department to ascertain if the land is suitable for the granting of a homestead lease. Lists of lands which are available cannot be supplied as it would be impossible to keep such lists up to date. However, on request plots will be supplied showing the lands available in individual townships.

Settler's Qualifications: Any person, 18 years of age or over, not owning other land, who is a British subject or Canadian citizen or declares his intention of becoming a Canadian citizen and who has resided in Alberta for at least one year out of the three years immediately preceding the date of his application may apply for a homestead lease upon payment of an application fee of $10.00 per quarter section. An application may cover one-quarter section or one-half section of adjoining land.

A person otherwise qualified but owning one-quarter section of land may apply for a homestead lease for one-quarter section within five miles of the land already owned.

A husband and wife may not hold more than one-half section under homestead lease. A married person whose spouse owns one-quarter section of land may apply for a homestead lease for one-quarter section of land within five miles of the land owned by the spouse.

A veteran who furnishes a certificate under The Veterans' Land Act, 1942, (Canada) may apply for one-quarter section or one-half section of land as a homestead lease regardless of other lands that he may own or rent. Veterans are not required to have lived in Alberta prior to making application, but are required to make payment of the application fee of $10.00 per quarter section.

Applications must be made in person either at the sub-agency land office for the district in which the land is situated or at the office of the Department of Lands and Forests, Edmonton.

Residence Duties: A minimum of three months' residence duties, beginning the fourth year and each year thereafter are required on the leasehold or on vicinity land within five miles of the leasehold, purchased by the lessee after issuance of the lease or on land owned by the husband, wife, father, mother, brother or sister of the lessee.

Cultivation Duties: The lessee is required to break and seed to crop each year the areas shown in the schedule of Section 21 of The Public Lands Act. This section is as follows:

"A lessee of a homestead not exceeding one-quarter section shall break and crop the following areas in each year of the term:

	Break	Seed to Crop
First Year	10 acres	nil
Second Year	10 acres	10 acres
Third Year	10 acres	20 acres
Fourth Year	10 acres	30 acres
Fifth Year		40 acres
Sixth Year		40 acres
Seventh Year	10 acres	40 acres
Eighth Year	10 acres	50 acres
Ninth Year		60 acres
Each succeeding year for the duration of the lease		60 acres

Any land under cultivation at the date of the commencement of the term of the homestead lease shall be deemed to be land brought under cultivation by the lessee pursuant to this section.

Where the homestead comprises an area greater than one-quarter section, the acreage to be broken and sown to crop shall bear the same proportion to the total acreage as the acreages hereinbefore set forth bear to one-quarter section.

Where authorized by the Director, summerfallow shall be deemed to be land seeded to crop."

Crop Share Payment: If no area is under cultivation when the lease is issued no crop share is payable the first three years. Thereafter a one-eighth crop share is payable each year on the area required to be in crop, as determined in Section 21.

On land under cultivation when the lease is issued, a one-fourth share of the crops grown is payable during the first ten years of the lease.

No taxes are payable by the lessee as the department refunds part of the crop share collected to the taxation authorities.

Requirements for Title: When the lessee has satisfactorily performed five years' duties he may apply for title on payment of $100.00 for a lease comprising one-quarter section or $300.00 for a lease comprising one-half section.

After five years' duties have been completed this purchase price is reduced by 20 per cent for each additional year's duties completed until the tenth year when title may be granted without payment of a purchase price.

Financial Assistance: Under the Homestead Lease Loan Act a lessee, after he has obtained his lease and completed a minimum of 35 acres of clearing and breaking may apply for a loan of $1,000.00 to be used for additional clearing and breaking. The loan is repayable over a period of ten years with interest at the rate of 3½ per cent per annum and on overdue instalments 4½ per cent per annum. A veteran who has obtained a lease may apply for financial assistance under The Veterans' Land Act, 1942, (Canada).

HOMESTEAD SALES

Lands Available: Any vacant public land which is available for homestead lease application is also available for homestead sale application by any eligible applicant.

Eligibility: Any person 18 years of age or over, who is a British subject or Canadian citizen or declares his intention of becoming a Canadian citizen and who has resided in Alberta for at least one year within the three years immediately preceding the date of making the application may apply for a homestead sale.

A veteran who furnishes a certificate under The Veterans' Land Act, (Canada), certifying he is a veteran, may apply regardless of the residence qualifications.

If eligible, an applicant may apply for three adjoining quarter sections if same are needed to give at least 240 acres of arable land, but the application will be restricted to one-half section if two adjoining quarters contain a minimum of 240 acres of arable land.

If the applicant or the spouse owns, rents or leases other land, the combined area of the land applied for and the land so owned, rented or leased shall not exceed three quarter sections, or one-half section, where the combined areas contain not less than 240 acres of land suitable for cultivation. The land applied for must be within five miles of the land owned, rented or leased.

The application fee of $25.00 per quarter section, payable at the time of application, will be applied against the sale account if the purchaser obtains title.

Applications must be made in person either at the Sub-Agency Land Office for the district in which the land is situated or in the Office of the Department of Lands and Forests, Edmonton, Alberta.

Cultivation Duties: Cultivation requirements in connection with a homestead sale are identical to those required in connection wth a homestead lease.

Resdence Duties: Residence duties are **not** required in connection with a homestead sale.

Purchase Price: The purchase price of the land contained in a homestead sale is established after inspection of the land by an officer of the department.

The purchase price is payable in equal annual instalments commencing the fourth year where less than 25 acres of land are under cultivation at the time the sale was granted, or, commencing the third year where not less than 25 acres and not more than 50 acres are under cultivation at the time the sale is granted, or, commencing the second year where not less than 50 acres are under cultivation at the time the homestead sale is granted. The term of the Sale Contract is ten, fifteen or twenty years depending on the amount of the purchase price.

The interest on the purchase price does not begin to accrue until the first instalment is due and payable.

Taxation : Where less than 25 acres of land are under cultivation on issue of a homestead sale, taxes are payable commencing the fourth year.

Where not less than 25 acres and not more than 50 acres are under cultivation at the time the sale is issued, taxes are payable commencing the third year.

Where not less than 50 acres and not more than 100 acres are under cultivation at the time the sale is issued, taxes are payable commencing the second year.

Where not less than 100 acres are under cultivation at the time the sale is issued, taxes are payable commencing the first year.

House : If the purchaser erects a house of a value of at least $1,000.00 and such house is still on the land when he applies for title, he may then be credited with the sum of $400.00 on account of purchase price, or,may be refunded the sum of $400.00 if he has paid the purchase price in full.

Requirements for Title : When the purchaser has satisfactorily performed a minimum of five years' duties and has paid the purchase price in full, he may apply for the issue of notification for title.

Financial Assistance : When the purchaser has a minimum of 35 acres under cultivation, he may apply for a loan not exceeding $1,000.00 to complete further clearing and breaking.

A veteran who holds a homestead sale may apply for assistance under The Veterans' Land Act, Canada, if eligible.

General Information : The purchaser may, with the consent of the Minister, assign his interest under a homestead sale after the fourth year to a person eligible to obtain a homestead sale.

A homestead lessee, if eligible, may apply for the conversion of his homestead lease to a homestead sale and be given credit on account of the purchase price for the amount paid as crop share less the amount refunded to Taxation Authorities by this department.

Further information regarding the granting of homestead leases or homestead sales or regarding the regulations for the granting of other leases or permits on public lands may be obtained by writing to the Director of Lands, Department of Lands and Forests, Edmonton, or by making a personal call at any of the sub-agency and land offices located at various points throughout the province. Permanent sub-agency offices are maintained at the following places: Lac La Biche, Bonnyville, Rocky Mountain House, Calgary, Edson, Grande Prairie and Peace River.

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Acknowledgment

The maps in this report were prepared by the Technical Division, Department of Lands and Forests, under the supervision of Mr. H. Soley, Director.

Throughout the preparation of this report helpful advice was received from the staff of the Research Council of Alberta and the staff of the Department of Lands and Forests.

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